

**Summary of Testimony for Maria G. Korsnick
President and Chief Executive Officer, Nuclear Energy Institute
Before the Subcommittee on Energy
House Energy and Commerce Committee
February 6, 2018**

Innovation in the nuclear industry is happening across the country—from reactor “startups” to the cutting edge research being conducted by our national laboratories. But if America—the country with the most reactors in the world—sits back and lets our fleet die off, then that important innovation will die off as well. The nuclear industry in our country is at a crossroads, and we urgently need tangible signals from Congress that it values nuclear power.

First, ensure nuclear power is fairly compensated. Ensuring nuclear power is fairly compensated is essential to the future of America’s nuclear fleet. The Committee should encourage the Federal Energy Regulatory Commission (FERC) to promptly direct the regional transmission organizations (RTOs) to move forward with price reform efforts to recognize the reliability contributions of baseload resources. The Committee also should encourage the Department of Energy (DOE) to support FERC and RTOs efforts to identify grid resilience risks associated with fuel-security issues (*e.g.*, reliance on “just-in-time” natural-gas deliveries).

Second, reform the federal used fuel management program. The House should pass H.R. 3053, the Nuclear Waste Policy Amendments Act of 2017. But in moving the bill forward, it is important that bill’s funding reforms not be weakened. Doing so would harm the durability of the federal used fuel program.

Third, reform the Nuclear Regulatory Commission’s (NRC) fee structure. Reform of the NRC’s fee recovery structure is necessary and overdue. NEI supports the Nuclear Utilization of Keynote Energy Act (H.R. 1320), which would establish a more rational fee recovery process.

Fourth, support the timely deployment of accident tolerant fuels, small modular reactors, and advanced reactors. Congress should: (a) establish deadlines for the NRC to reviews for new fuel types and advanced reactor designs; (b) enhance federal power purchase agreement authorities to provide agencies with the ability to enter into long-term contracts; and (c) extend the placed-in-service date for the nuclear production tax credit.

Fifth, streamline the nuclear export review process and expand nuclear project finance opportunities. To help level the playing for U.S. nuclear firms that compete against foreign governments, continued oversight of DOE’s export regulations is needed, as are expanded opportunities to finance nuclear projects through a functioning Export-Import Bank.

Sixth, provide federal funding for decontamination and decommissioning of legacy gaseous diffusion plants. The gaseous diffusion plants were developed for nuclear weapons and national defense programs, and U.S. utilities have already paid twice for their portion of the decontamination and decommissioning of these sites. Congress should fund the decontamination and decommissioning of the gaseous diffusion plants and other legacy defense sites.

Testimony for the Record
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I am Maria Korsnick, President and Chief Executive Officer of the Nuclear Energy Institute (NEI).¹ I appreciate the opportunity to testify on the challenges facing the nuclear industry and what those challenges mean for our nation's security, economy, and environment.

Nuclear power is vital to our electricity system. It provides almost 20 percent of America's electricity. Nuclear plants run 24 hours a day, 7 days a week producing power with unmatched reliability. These are hardened facilities that are protected from physical and cyber threats, helping to ensure we have a resilient electricity system in the face of potential disruptions.

The 99 reactors in our nuclear fleet provide about 60 percent of the clean electricity in our country. Because electricity generation from nuclear energy does not release carbon dioxide and other harmful air pollutants, by maintaining a strong nuclear fleet, the United States will not have to choose between the health of its electric grid and the health of its most vulnerable citizens.

While the domestic nuclear fleet is a central part of our nation's critical infrastructure, this national asset should not be taken for granted. In the last five years, six units that produced 4,100 megawatts of power have closed. Companies that own nuclear plants have announced the scheduled closure of an additional eight units, which provide another 7,100 megawatts of

¹ NEI is responsible for establishing policy on issues affecting the commercial nuclear energy industry. NEI has about 300 members, including companies licensed to operate U.S. commercial nuclear power plants, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, materials licensees, labor organizations, universities, and other organizations involved in the nuclear energy sector.

capacity. Over the course of a year that amounts to over 90 million megawatt-hours of clean generation that will have been lost by the early closure of these units. For comparison, that is more than all of the wind electricity that Texas and California produced in 2016.

The nuclear industry is at a crossroads, and we urgently need tangible signals from Congress that it values nuclear power. I commend the Committee for holding its series of hearings on “Powering America” to explore the state of our electricity markets and the resilience of the electric grid. As I explained in my testimony on October 3, 2017, the failure of the organized markets to value the attributes provided by nuclear generation is undermining the survival of our country’s merchant fleet. Ensuring nuclear power is fairly compensated by organized markets is essential to the future of America’s nuclear fleet. Comprehensive market reform must correct defects in what is known as “price formation”—essentially the rules that govern how market prices are set. Although PJM Interconnection for example is considering promising price reform efforts to recognize the reliability contributions of baseload resources, these efforts are likely to stall unless the Federal Energy Regulatory Commission (FERC) directs them to move forward. The Committee should encourage FERC to do so.

The organized markets also need to start compensating nuclear generation for its unique set of valuable attributes, including the fact that it is not reliant on “just-in-time” fuel deliveries by virtue of having 18-to-24 months of fuel onsite. Although FERC has directed the regional transmission organizations (RTOs) like PJM to consider these issues in the context of grid resilience, this Committee should encourage the Department of Energy (DOE) to provide FERC and the RTOs with vital information in this process. DOE is well positioned to draw upon its expertise to help establish design basis threats for fuel delivery risks to electric generation, including potential long-term outage risks caused by natural and man-made threats.

I also would like to thank this Committee for its action on used fuel legislation and hope to see the House pass H.R. 3053, the Nuclear Waste Policy Amendments Act of 2017. But in moving the bill forward, it is important that funding reforms not be watered down. Doing so would harm the durability of the federal used fuel program, making it less likely that the taxpayers will ever be unburdened by the government's ever-mounting liability due to its inability to fulfill its obligations.

While the markets and used fuel are significant issues, today I am here to speak about several other important actions Congress can take to preserve our nation's leadership in the nuclear arena and help America's nuclear innovators thrive. Congress should reform the Nuclear Regulatory Commission's (NRC) fee structure and direct the NRC to modernize its regulatory framework to accommodate a range of innovative technologies. Modernizing the NRC's outdated fee structure, regulatory requirements and licensing processes is necessary for the operating fleet and will establish regulatory conditions that can foster deployment of new technologies. Without a strong operating fleet, we will be hard pressed to maintain the physical and intellectual infrastructure necessary to compete in what is now an international market.

On behalf of NEI and its members, I would like to thank this Committee for considering these important issues. I also urge the Committee to set the stage for preserving our operating fleet, and developing and deploying new innovative nuclear reactor technologies.

Reform of the NRC's fee recovery structure is necessary and overdue.

The origins of the NRC's fee structure dates back to the passage of the Omnibus Budget Reconciliation Act of 1990 (OBRA-90). OBRA-90 requires the NRC to recover approximately

90 percent of its budget through fees charged to licensees and applicants.² Congress provides the remaining 10 percent of the agency's budget authority through appropriations, which covers the costs for some of the NRC's activities that are not attributable to existing NRC licensees (*e.g.*, international assistance activities). This arrangement requires the industry to pay for "fees-for-services" at a current rate of \$263 per hour. The industry also is charged annual fees, which are apportioned among licensee classes to cover the remainder of the agency's budget. These annual fees require that industry pay for many activities that provide no direct benefit to licensees.

Congress attempted to address these fairness and equity issues in the FY 2001 Energy and Water Development Appropriations Act but, by the late 2000s, significant problems with the NRC's fee recovery framework began to surface. Each year since then, in response to the NRC's proposed fee rule, NEI has raised concerns related to the level of fees to be collected and the issues caused by the fee structure. NEI has consistently emphasized the industry's concerns regarding significant increases in overhead costs, large increases in the NRC's budgets, and the failure to account for premature plant closures.

The NRC has largely responded to these comments by indicating that its "hands are tied" by the current statutory framework. Thus, congressional action is needed to make the fundamental changes to the NRC's fee recovery structure that are long overdue. Simply put, the NRC is not on course to accomplish that change absent a congressional mandate.

H.R. 1320, Nuclear Utilization of Keynote Energy Act, co-sponsored by Congressmen Kinzinger and Doyle would provide such a mandate. Notably, similar fee reform legislation is pending in the Senate after it was approved by the Environment and Public Works Committee by a bipartisan 18-3 vote (S. 512, Nuclear Energy Innovation and Modernization Act). H.R. 1320

² This fee-recovery requirement excludes amounts appropriated for waste incidental to reprocessing, generic homeland security activities, and inspector general services for the Defense Nuclear Facilities Safety Board, as well as any amounts appropriated from the Nuclear Waste Fund.

would establish a more rational fee recovery process that also will ensure that the agency continues to be sufficiently funded to effectively carry out its mission to protect public health, safety, and security. The bill would help bring the NRC's spending on corporate support in line with other federal agencies by limiting corporate support costs to no more than 30 percent of the agency's budget authority, beginning in FY 2020 and FY 2021. The percentage cap on corporate support is to be reduced by 1 percent every two years until reaching 28 percent in FY 2024. This improved efficiency should translate to lower annual fees for licensees.

Complementing the limit on corporate support, the bill would cap annual fees for operating power reactors at the FY 2016 level (adjusted to reflect changes in the Consumer Price Index). The misalignment between the NRC's budget and its workload has recently resulted in an annual fee structure that penalizes reactor licensees that continue to operate for another licensee's decision to discontinue operation. The cap on annual fees should mitigate the potential for excessive fees, which will be particularly important if the NRC does not adequately adjust its budget to reflect the declining workload with fewer operating reactors and increase its efficiency.

It is important to understand that a cap on annual fees would not adversely affect safety. The cap in the bill is set at the 2016 fee rule level—among the highest in the NRC's history. This assures that the NRC would have significant resources to carry out its safety and security mission. The annual fee cap also does not affect “fee-for-service” activities, which the NRC recovers separately. The NRC will continue to recover fees necessary to support the NRC resident inspector program, force-on-force exercises, security plan reviews, and emerging issues that may require NRC resources to perform additional safety or security inspections at specific facilities. The cap on annual fees would not constrain the NRC's resources in a way that would compromise the agency's safety and security mission, and it appropriately provides for a waiver

of the cap in the case of unforeseen and unlikely circumstances.

The bill also would provide relief based on equitable considerations. For example, it appropriately prevents the NRC from recovering fees for activities that are not attributable to an existing NRC licensee or class of licensees. Additionally, the bill provides for federal funding for the development of regulatory infrastructure for advanced reactor licensing.

The NRC's regulatory processes should be modernized and streamlined to support timely deployment of accident tolerant fuels and other innovations.

Current operating plants, units now under construction, and plants of the future all must be able to rely on a safety-focused, efficient, and technically-expert regulator. It is eminently reasonable for the industry as well as our nation's energy consumers to expect a regulatory process with those attributes. To keep pace with the pace of technological innovation, the NRC's untimely, somewhat outdated, and unnecessarily costly regulatory regime needs updating.

In an ideal world, NRC would use realistic information in its decision-making, resources would be allocated based on risk information, and such information would be used to efficiently resolve issues with very low safety significance. In this world, the NRC would encourage the use and incorporation of new, advanced technologies that increase safety margins, such as digital controls, advanced process monitoring, and advanced fuels.

What we see instead are significant barriers to progress. These include the inconsistent use of risk-informed thinking in regulation, insufficient attention to realism in risk modeling, and a reluctance to embrace transformative changes needed in the areas of digital instrumentation and control, advanced fuels, new reactor licensing, and automated process monitoring.

We are encouraged by the NRC's recent announcement of an effort to transform its processes and culture to address these barriers. This effort, however, is in its infancy and it is unclear what changes are being considered and how much time will be needed to implement the

changes once approved by the Commission. If taken now, congressional action directing regulatory reform can shape these NRC efforts so that they make a meaningful difference.

Whether it is an energy bill, standalone legislation, or an infrastructure package, Congress should focus on the following areas for reshaping the regulatory processes.

Encouraging the deployment of accident tolerant fuel. Collaborating with DOE, the U.S. nuclear industry is developing highly advanced accident tolerant fuels (ATF), which offer improved performance and have the potential to provide significant additional safety margin to protect the public and environment. Initial evaluations also project cost savings due to improved fuel cycle economics, reduced operational and maintenance costs, and enhanced ability for reactor maneuvering and potential load-following flexibility. ATF thus has the potential to improve the economic competitiveness of the existing fleet of nuclear reactors. The effort to develop ATF designs is accelerating as the value of these technologies becomes more apparent.

In the next week or so, the first ATF lead-test rods will be loaded at Hatch Nuclear Plant in Georgia. Even more advanced designs also will be tested in the coming years. In total, four technologies are moving to commercialization. The industry's goal is to enable initial deployment of ATF into commercial reactors in the early to mid-2020s.

To meet this timetable, industry and the NRC will have to improve the processes for bringing new fuels to market—an endeavor that in the past has typically taken a decade or longer. On the industry side this will involve greater reliance on advanced computer modeling techniques and a closer collaboration with the scientific community in the DOE complex. Efforts are well underway in this regard and industry very much appreciates the strong support these efforts have received from Congress. The \$55 million in funding and accompanying direction to DOE in the Senate's latest appropriations proposal is exemplary, and the recent successful restart

of DOE's Transient Reactor Test Facility, which will provide valuable data to inform ATF development, is evidence that funding in this area is money well spent.

On the NRC front, agency staff recently issued a draft project plan for ATF licensing. We look forward to continuing to work with NRC to reshape its regulatory framework in a way that recognizes, and enables in a timely manner, advanced safety assurance capabilities. But congressional action would help to pave the way for a more modern regulatory approach. Because investment in nuclear energy infrastructure is inhibited by uncertain timelines for regulatory reviews and a lack of transparency into project management, Congress should put reasonable time limits for reviews to encourage efficiency. Legislation is needed to establish a deadline for the NRC to review new reactor designs or new fuel types. A two-year deadline would be reasonable.

Such action by Congress would help support advanced innovations such as the new reactor concepts now under development. The fundamental rethinking of the makeup and configuration of nuclear fuel embodied in the ATF efforts may be just the beginning. Rapid innovation is driving a revolution in energy technology, as is evident in the natural gas, solar, and wind industries. But for our nation to continue to benefit from the inherent advantages of nuclear energy—a small environmental footprint combined with advantages of scale and reliability—we need the nuclear industry to be part of that innovation revolution.

Accelerating licensing and deployment of advanced nuclear reactor technologies. NEI supports a nuclear future that includes additional large light water reactors (LWRs) and advanced reactors, including water-cooled small modular reactors (SMRs) and non-light water reactors. Evolutionary LWR designs already are commercially available, with the two AP1000 units under construction at the Vogtle site in Georgia. Advanced water-cooled SMRs are expected to be

available by the mid-2020s and advanced non-LWRs are being developed to complement the suite of nuclear generating options available in the future. It is critically important that the U.S. nuclear industry maintains a leadership role in nuclear technology development and contributes to worldwide safety enhancements by continuing to design and build new nuclear plants.

One hundred miles outside of Atlanta, Georgia, over 6,000 workers are currently building our country's first advanced nuclear power facilities. When construction began on the two units, it was with the understanding that once in operation, the facility would be eligible to receive the nuclear production tax credit. Unfortunately, the reactors are currently set to come online just after the eligibility date for receiving the tax credit that Congress has already included in its budget. I was very pleased that the House addressed this issue by passing stand-alone legislation last summer and also included an identical provision in its version of tax reform. But the final version of tax reform failed to include this critical clean energy provision. Extending the current placed-in-service date for the nuclear production tax credit is essential to the project's success. I humbly ask every member on this Committee for any assistance you can offer in encouraging passage of bipartisan legislation to extend the placed-in-service deadline in a timely manner. The United States must show the international community that we can still build the world's most advanced nuclear reactors in order to remain a global leader in the commercial nuclear industry.

Beyond the United States, many countries are looking to a rapid expansion of nuclear generation to address their growing electricity needs. As the United States will need to replace a significant amount of retiring generation beginning in the 2030s, it is imperative that the U.S. industry's technology be available for domestic and international deployment. Advanced nuclear reactor designs have many potential technological advantages—making them particularly appropriate for deployment in developing economies (*e.g.*, passive cooling even in the absence

of an external energy supply; operation at or near atmospheric pressure, which reduces the likelihood of a rapid loss of coolant; extended operations between refueling; consumption of nuclear waste as fuel, thus reducing disposal issues).

Although the U.S. led the world into the age of nuclear energy, we are losing ground to other countries with substantial, state-funded advanced reactor programs. The Russians are operating two commercial liquid-metal fast-reactors and the Chinese are bringing a commercial high-temperature gas pebble-bed reactor online this year. By the time the U.S. has an operational pebble-bed reactor, the Chinese will likely have 10 years of operational experience. This is not a comment about the U.S. developer, but rather a comment about the lack of our government's investment in new technologies. To avoid being left behind, we must focus on regulatory reform, R&D infrastructure, and development and deployment of new technologies. The strategic importance of U.S. nuclear technology development and sales should not be underestimated. Nuclear power plants are enduring national assets that forge a special century-long relationship between the host country and the nation that supplies the reactors and the associated fuel, major components, operations, maintenance, security, and decommissioning services.

The development of U.S. advanced reactor technology is at risk unless we modernize our licensing process. We believe the U.S. government must act promptly to create a streamlined and predictable licensing pathway for advanced reactors. The House already has taken a step in the right direction by passing the Advanced Nuclear Technology Development Act of 2017 (H.R. 590), cosponsored by Congressmen Latta, McNERney, Fleischmann, Doyle, Hudson, and Tonko. NEI supports this bill, which would encourage cooperation between DOE and NRC to develop a regulatory framework for advanced nuclear energy technologies. It also directs the NRC to develop an efficient, risk-informed, technology-neutral framework for advanced reactor

designs. Such a framework would help align the regulatory framework for advanced reactors with their inherent enhanced safety. Modernizing design requirements via a more technology-neutral, performance-based and safety-focused regulatory process would reduce unnecessary regulatory burden, reduce licensing and operating costs, and improve the economic viability of these technologies.

NEI also supports the approach to modernize the NRC licensing process in H.R. 1320, the Nuclear Utilization of Keynote Energy Act. It would help to reverse the trend of excessively long licensing reviews. Compared to its practice decades ago, the NRC requires applications for designs with improved safety features to provide greater detail, which adds time and expense without enhancing safety. Licensing reactors is becoming more time consuming and less certain even as the designs get safer. This “regulatory creep” must be reversed by focusing licensing reviews on areas that are safety-significant and changing practices on the required level of detail in license applications.

We strongly encourage this Committee to give strong consideration to H.R. 1320. In addition, the Committee should support the following policies that would help maintain U.S. technological leadership.

- Enhance federal power purchase agreement (PPA) authorities to provide agencies the ability to enter into long-term PPAs for the life of a nuclear facility: Legislation is needed to ensure that such a PPA’s impact to the federal budget is assessed annually instead of the entire PPA value being “scored” in the year the PPA is entered. PPAs should have a mechanism to allow DOE and Department of Defense facilities to compensate SMR and other nuclear plants that supply electricity to national security and mission critical activities. This has the potential to be a win-win for the industry and our government.

- Create a pathway and schedule for commercialization of light water small modular reactors and non-light water reactor technologies: This pathway would include industry cost-shares, with DOE demonstrating the latest advanced manufacturing and construction techniques, and providing incentives for first-movers that deploy these technologies.
- Establish an infrastructure financing program that will allow large, job-creating projects to access capital at preferred rates: Targeted federal support could be used to more efficiently deploy private equity, enabling the pursuit of infrastructure projects that would otherwise have not been feasible. Such a program could be of value in encouraging small modular reactor projects as well as advanced reactor construction.
- Fund and execute its versatile test reactor program with the objective of having a new fast neutron user facility up and running by the end of 2025: The United States currently lacks the fast neutron irradiation testing capability needed to develop advanced nuclear fuels and materials. The only resource currently available to U.S. companies is in Russia. We look forward to working with the House to advance H.R. 431 and H.R. 4378 to authorize a much-needed versatile test reactor.
- Provide a pathway to ensured supply of high-assay low-enriched uranium: Congress should require that DOE develop and submit a plan to provide both near- and long-term sources of fuel with uranium enrichment levels between five and twenty percent to support advanced reactors and advanced fuel designs.
- Ensure that the NRC provides additional flexibility for changes during construction: Utilities and reactor builders need the ability to make changes during construction without prior NRC approval for minor changes. Without new or revised guidance and regulations, current and future plants under construction face increased costs, delays, and

unnecessary regulatory burden. Increased congressional oversight would encourage the NRC to make these necessary changes.

- Reduce burdensome environmental regulations. Although the National Environmental Policy Act (NEPA) does not require trial-type hearings and most agencies conduct NEPA reviews through a notice-and-comment process, the NRC uses this standard procedure but also reconsiders NEPA issues again in an adversarial adjudicatory hearing. Congress should direct NRC to modernize its process and allow the NRC's NEPA documentation to be brought directly to an agency decision-maker, without a burdensome and duplicative adjudicatory process.

The nuclear export review process should be streamlined and nuclear project finance opportunities should be expanded.

The United States developed and commercialized nuclear technologies and through their export allowed millions around the globe to benefit from abundant, clean, and reliable electricity. With the largest operating fleet and world-leading technology, the United States sets the bar for operational and safety practices and has led all other nations in setting nuclear security and non-proliferation norms.

Today, however, the global landscape is rapidly shifting. Russia, and more recently China, have made great strides developing their nuclear industries, both domestically and for the export market. With their expansion, those nations are poised to take leading roles in the establishment of global nuclear norms and standards in the future. Russia, through the state-owned and state-supported company "Rosatom," is building seven new reactors domestically and reports to have \$133 billion in foreign orders.³ Russian-supplied reactors are under construction in Bangladesh, Belarus, India, Slovakia, and China, and there have been announcements of

³ See International Atomic Energy Agency, Power Reactor Information System, *available at* <https://www.iaea.org/pris/>; Rosatom, Global Presence, *available at* <http://www.rosatom.ru/en/global-presence/>.

Russian-supplied nuclear projects in Turkey, Finland, Egypt, and elsewhere. In just the past five years, China has brought more than 20 reactors on line and today has 19 additional plants under construction.⁴ China is aggressively becoming a supplier to the global market, including engagement in Argentina and the United Kingdom. Both China and Russia are actively pursuing the current reactor tender in Saudi Arabia.

To reverse this trend, action is urgently needed to level the playing field for U.S. industry. U.S. firms compete not with other companies but with governments, and the head of state is often a key advocate for its national nuclear industry. A whole-of-government approach, informed by strategic thinking about global nuclear energy development and geopolitical relationships, is critical for long-term U.S. success. High-level coordination across the executive branch is vital for achieving this objective. NEI commends the recent efforts led by the DOE and Department of Commerce to advocate for U.S. industry and is encouraged by broader Trump Administration efforts to promote U.S. nuclear exports. But there is much more work to do to level the playing field.

Streamline the nuclear export review process. The nuclear industry thanks this Committee for its beneficial oversight of the 10 C.F.R. Part 810 regulation, which governs the export of unclassified nuclear energy technology. But the lengthy time required by DOE to process a Part 810 specific authorization continues to inflict great harm on the competitiveness of U.S. nuclear exporters. This problem is not new. The time required to process a Part 810 application has ballooned steadily since 1990 to the current average of 400 days. By comparison, other leading nuclear supplier countries require from five weeks to three months for an equivalent export authorization. As national security experts have noted, this widening gap in

⁴ See International Atomic Energy Agency, Power Reactor Information System, *available at* <https://www.iaea.org/pris/>.

processing times not only disadvantages U.S. nuclear exporters but also undermines U.S. leadership on global nuclear safety, security, and nonproliferation.

DOE recently demonstrated that processing a Part 810 specific authorization need not make U.S. firms uncompetitive. We applaud that effort and urge the Department to address, in a more systematic manner, the burden that Part 810 imposes on U.S. exports and American jobs. We look forward to working with the Administration and this Committee on reforming Part 810.

Expand opportunities to finance nuclear projects. While U.S. firms are able to provide superior technologies, state-owned competitors can often provide financing options that U.S. firms cannot match. To remedy this, the U.S. Senate needs to ensure the Export-Import Bank of the United States can function. Right now, there are pending nominations to the board of the Export-Import Bank awaiting confirmation, which has lacked a quorum since June 2015. Without a quorum, the Bank cannot approve transactions in excess of \$10 million, a woefully insufficient amount when considering a nuclear energy transaction. In addition, we encourage the Administration and Congress to take the follow steps:

- Work with the Export-Import Bank to develop financing tools that are more competitive with financing provided by other countries' export credit-agencies;
- Revise the Overseas Private Investment Corporation's Environmental and Social Policy Statement to remove "the production of or trade in radioactive materials, including nuclear reactors and components thereof" from the list of Categorical Prohibitions;
- Open discussions with the World Bank Group and other Multilateral Development Banks encouraging them to allow financing of civil nuclear energy projects.

The long-term viability of U.S. uranium mines and related infrastructure needs to be strengthened.

A secure and reliable nuclear fuel cycle is a key component to powering our 99 operating reactors. The nuclear fuel cycle is a series of industrial processes that involve transforming mined uranium into nuclear fuel rods for power reactors. Unfortunately, the domestic uranium mining and conversion industries are under significant financial stress due to prolonged, low global market prices. Our domestic uranium mines have had to make difficult choices in laying off staff and suspending operations, including the suspension of operations at the nation's only conversion facility in Illinois. Domestic industries have to compete against international suppliers, some of which are state owned enterprises that can withstand the market's low prices. Congress should act decisively to restore the long-term viability of the nation's uranium mines and related infrastructure. The viability of this infrastructure is not only important to our commercial nuclear fleet, but also is critical for our defense and naval propulsion capabilities. A weakened U.S. nuclear fuel cycle and supply chain diminishes the ability of the U.S. to serve as an effective voice for nuclear nonproliferation and reduces our ability to continue to play a leadership role in shaping the development of nuclear energy in emerging nuclear states.

Federal funding should be provided for decontamination and decommissioning of legacy gaseous diffusion plants.

Gaseous diffusion plants were operated exclusively for nuclear weapons and national defense programs for the first 15 to 20 years of operation before they began to provide commercial enrichment services. Since a significant majority of the production at these sites went to the U.S. government and to foreign utilities, and because the majority of the cleanup costs are directly associated with defense programs, federal funding should be provided for the decontamination and decommissioning of these sites. U.S. utilities already have paid twice for

their portion of the decontamination and decommissioning of these sites—once through original full-cost recovery contracts, which included fees for cleanup that the government collected but did not set aside, and the second time through an annual tax, which was paid in the amount of \$2.6 billion. The customers of U.S. utilities should not be singled out yet again to pay to clean up DOE facilities developed for nuclear weapons and national defense programs.

In addition to the decontamination and decommissioning of gaseous diffusion sites, NEI supports DOE in its critical mission to complete the safe cleanup of all legacy sites resulting from decades of nuclear weapons development and government-sponsored nuclear technology research. Adequate funding for DOE is necessary to meet commitments made to affected communities and states. DOE's Office of Environmental Management must be funded to match its anticipated workload. It is critical that DOE work in concert with industry contractors to identify barriers to the effective execution of its objectives: risk reduction and the successful planning, construction, and operation of large, often first-of-a-kind projects and facilities.

Conclusion

On behalf of NEI and its members, I remind the Committee that fairly compensating nuclear plants for the many benefits they deliver is essential, both to ensure we continue to enjoy the benefits of today's reactors and to create the market signals needed to spur investment in a next generation of nuclear power plants. I thank the Committee for its work advancing the Nuclear Waste Policy Act Amendments of 2017 (H.R. 3053) and look forward to its consideration of the Nuclear Utilization of Keynote Energy Act (H.R. 1320). A strong commercial nuclear industry benefits all Americans by helping to supporting energy diversity and the clean air benefits nuclear plants provide. We look forward to working with members of Congress on these issues.